

Abstract.

The invention relates to a method for identifying or testing active substances, which influence the growth and survival of nerve cells, wherein a cell is brought into contact with at least one substance and subsequently, within said cell, the mRNA of the  $\beta$ -actin or the  $\beta$ -actin protein alone or together with the SMN protein and/or a ribonucleic protein hnRNP, in particular the ribonucleic protein hnRNP-R and/or hnRNP-Q, are determined, and the determined amounts of said components are compared to the amounts of said components in a cell, which has not been brought into contact with the prospective active substance, to a test system for carrying-out said method and to uses of such test systems.